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IN THE CLAIMS

1. (previously presented) A method of summarizing digital audio data comprising the steps of:

directly analyzing the audio data to identify a representation of the audio data having at least one calculated feature characteristic of the audio data;

classifying the audio data on the basis of the representation into a category selected from at least two categories; and

generating an acoustic signal representative of a summarization of the digital audio data, wherein the summarization is dependent on the selected category.

- 2. (previously presented) A method as claimed in claim 1, wherein the analyzing step further comprises segmenting audio data into segment frames, and overlapping the frames.
- 3. (previously presented) A method as claimed in claim 2, wherein the classifying step further comprises classifying the frames into a category by collecting training data from each frame and determining classification parameters by using a training calculation.
- 4. (currently amended) A method as claimed in claims 1, wherein the calculated feature comprises perceptual and subjective features related to music content.

- 5. (previously presented) A method as claimed in claim 3, wherein the training calculation comprises a statistical learning algorithm wherein the statistical learning algorithm is Hidden Markov Model, Neural Network, or Support Vector Machine.
- 6. (currently amended) A method as claimed in claims 1, wherein the type of acoustic signal is music.
- 7. (currently amended) A method as claimed in claims 1, wherein the type of acoustic signal is vocal music or pure music.
- 8. (currently amended) A method as claimed in claims 1, wherein the calculated feature is amplitude envelope, power spectrum or mel-frequency cepstral coefficients.
- 9. (currently amended) A method as claimed in claims 1, wherein the summarization is generated in terms of clustered results and heuristic rules related to pure or vocal music.
- 10. (currently amended) A method as claimed in claims 1, wherein the calculated feature relates to pure or vocal music content and is linear prediction coefficients, zero crossing rates, or mel-frequency cepstral coefficients.

11. (previously presented) An apparatus for summarizing digital audio data comprising:

a feature extractor for receiving audio data and directly analyzing the audio data to identify a representation of the audio data having at least one calculated feature characteristic of the audio data;

a classifier in communication with the feature extractor for classifying the audio data on the basis of the representation received from the feature extractor into a category selected from at least two categories; and

a summarizer in communication with the classifier for generating an acoustic signal representative of a summarization of the digital audio data, wherein the summarization is dependent on the category selected by the classifier.

- 12. (previously presented) An apparatus as claimed in claim 11, further comprising a segmentor in communication with the feature extractor for receiving an audio file and segmenting audio data into segment frames, and overlapping the frames for the feature extractor.
- 13. (previously presented) An apparatus as claimed in claim 12, further comprising a classification parameter generator in communication with the classifier, wherein the classifier classifies each of the frames into a category by collecting training data from each frame and determining classification parameters by using a training calculation in the classification parameter generator.

- 14. (previously presented) An apparatus as claimed in claim 11, wherein the calculated feature comprises perceptual and subjective features related to music content.
- 15. (previously presented) An apparatus as claimed in claim 11, wherein the training calculation comprises a statistical learning algorithm wherein the statistical learning algorithm is Hidden Markov Model, Neural Network, or Support Vector Machine.
- 16. (previously presented) An apparatus as claimed in claim 11, wherein the acoustic signal is music.
- 17. (previously presented) An apparatus as claimed in claim 11, wherein the acoustic signal is vocal music or pure music.
- 18. (previously presented) An apparatus as claimed in claim 11, wherein the calculated feature is amplitude envelope, power spectrum or mel-frequency cepstral coefficients.
- 19. (previously presented) An apparatus as claimed in claim 11, wherein the summarizer generates the summarization in terms of clustered results and heuristic rules related to pure or vocal music.

- 20. (previously presented) An apparatus as claimed in claim 11, wherein the calculated feature relates to pure or vocal music content and is linear prediction coefficients, zero crossing rates, or mel-frequency.
- 21. (previously presented) A computer program product for summarizing digital audio data comprising a computer usable medium having computer readable program code means embodied in said medium for causing the summarizing of digital audio data, said computer program product comprising:

a computer readable program code means for directly analyzing the audio data to identify a representation of the audio data having at least one calculated feature characteristic of the audio data;

a computer readable program code for classifying the audio data on the basis of the representation into a category selected from at least two categories; and

a computer readable program code for generating an acoustic signal representative of a summarization of the digital audio data, wherein the summarization is dependent on the selected category.

22. (previously presented) A computer program product as claimed in claim 21, wherein analyzing further comprises segmenting audio data into segment frames, and overlapping the frames.

- 23. (previously presented) A computer program product as claimed in claim 22, wherein classifying further comprises classifying the frames into a category by collecting training data from each frame and determining classification parameters by using a training calculation.
- 24. (previously presented) A computer program product as claimed in claim 21, wherein the calculated feature comprises perceptual and subjective features related to music content.
- 25. (previously presented) A computer program product as claimed in claim 21, wherein the training calculation comprises a statistical learning algorithm wherein the statistical learning algorithm is Hidden Markov Model, Neural Network, or Support Vector Machine.
- 26. 30. (canceled)